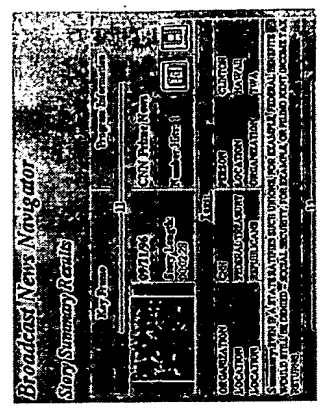


Broadcast News Editor (BNE)

Broadcast News Navigator (BNN)

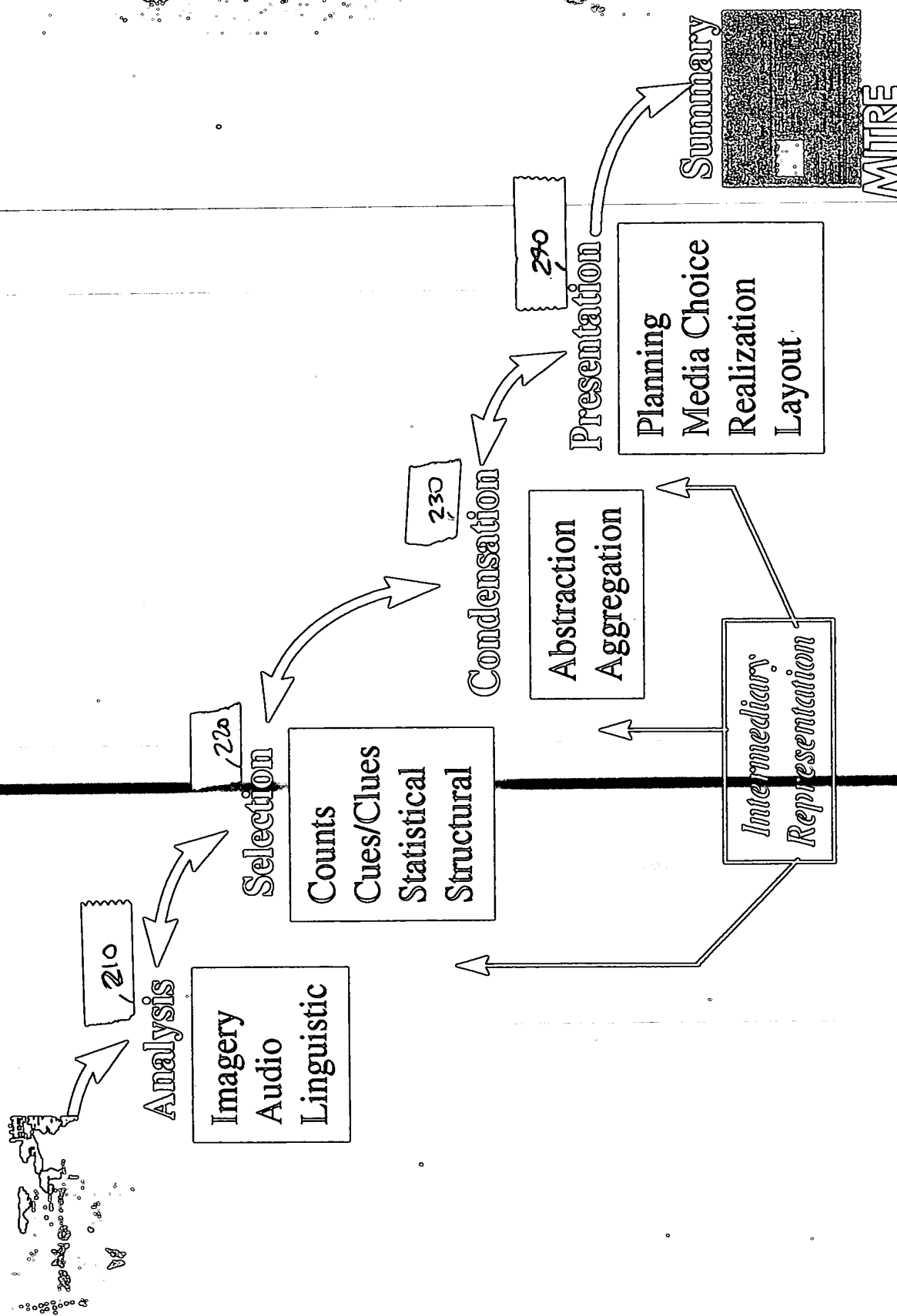


Web-based
Browse/Search by:

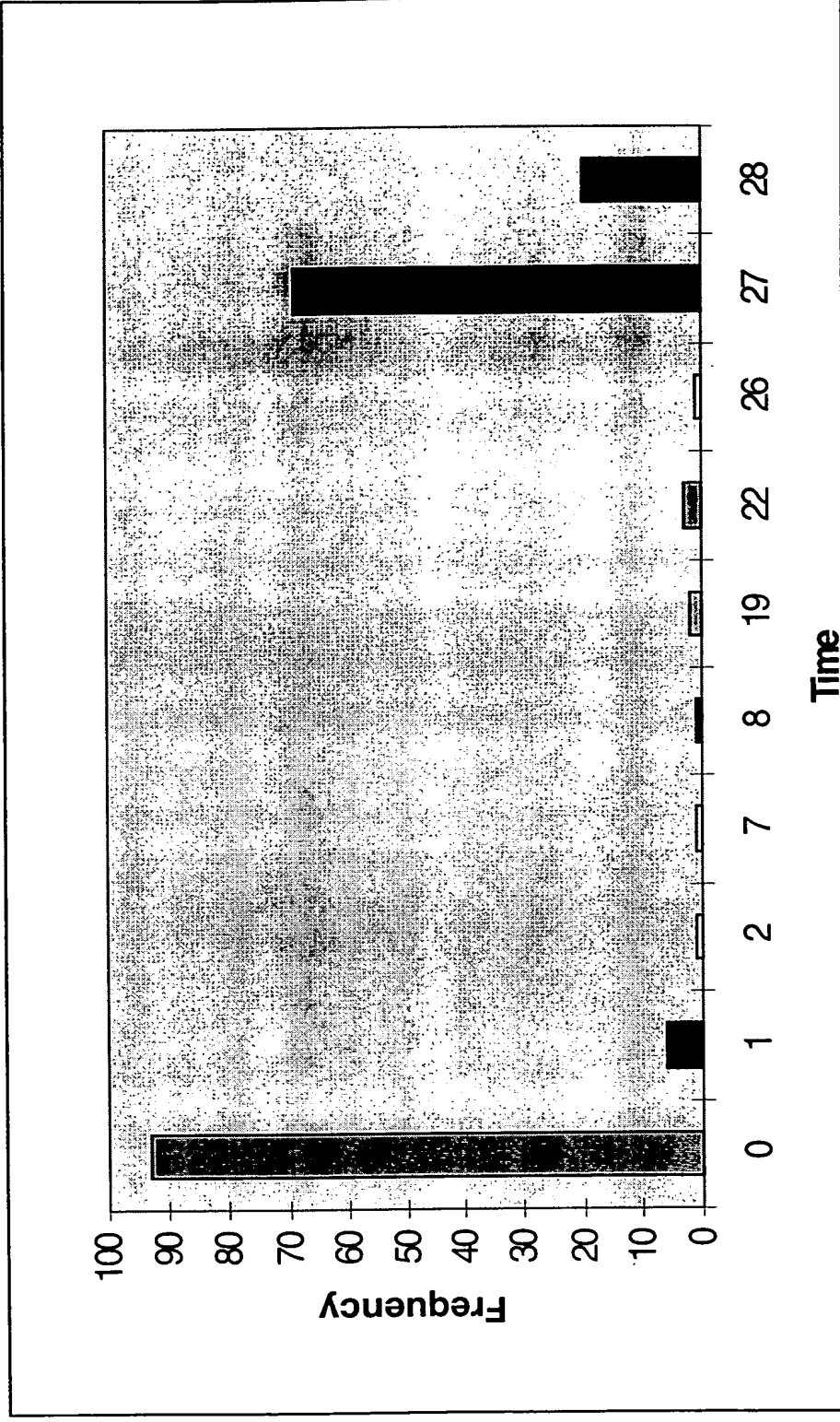
- Time
- Program
- Keyword
- Person
- Location
- Subject

FIG. 1

Video Summarization



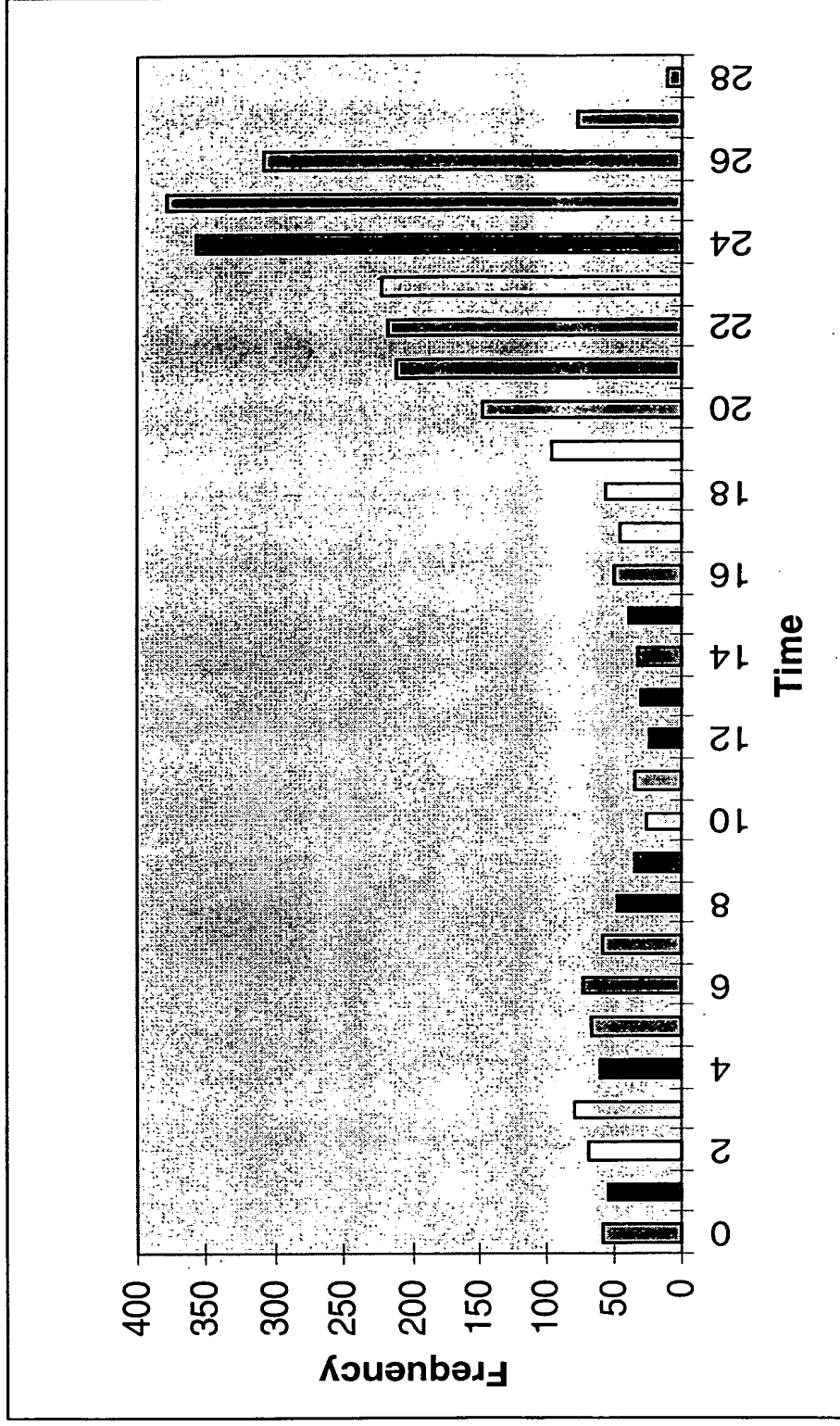
Phrase Frequency -- "I'M" <Person>



Uses Phrase "I'm" and Alembic's detection of a <Person>

FIG. 3

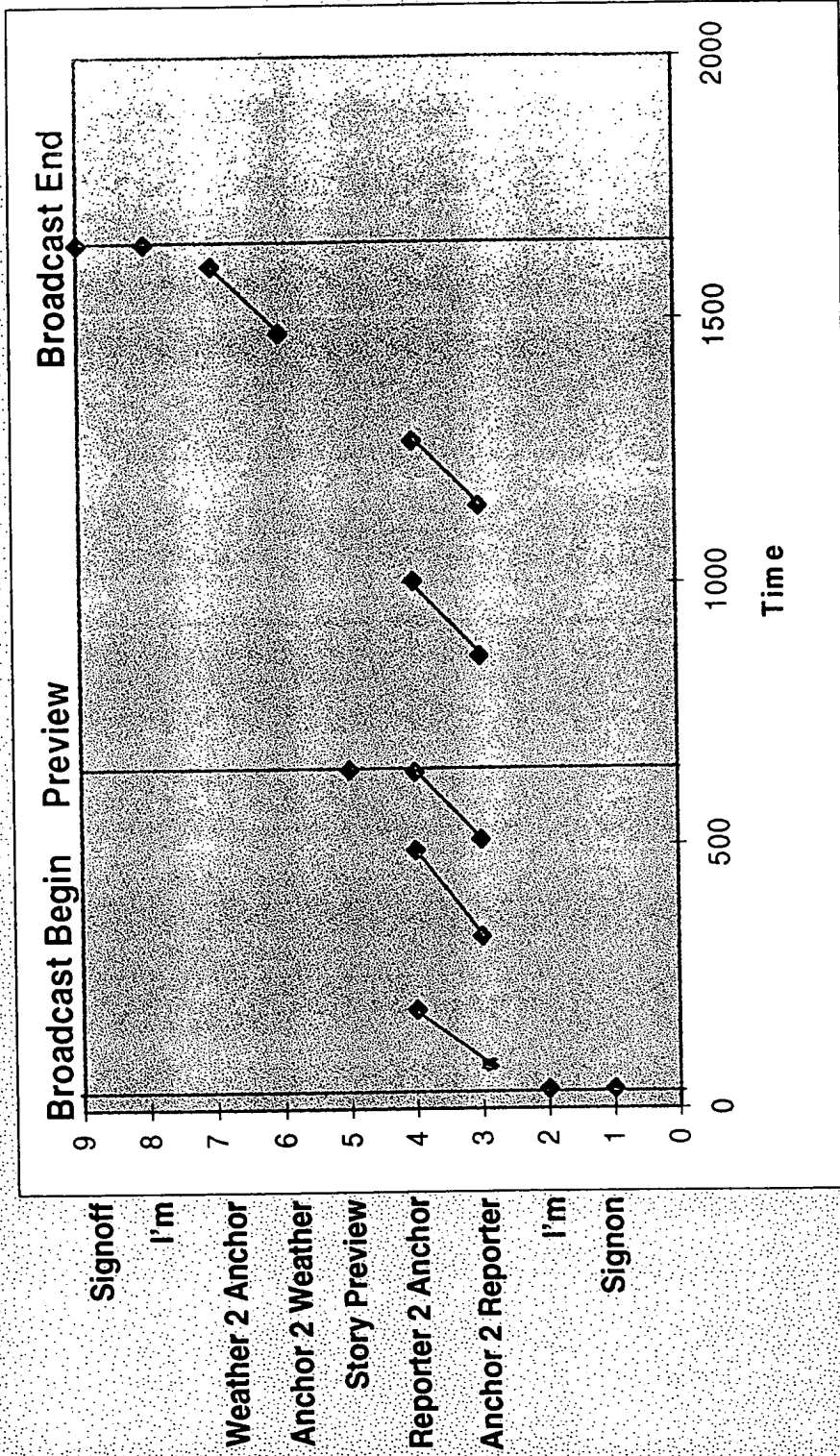
Weather Term Frequency



Most CNN Prime News weather forecasts start after 18 minutes.

FIG. 4

BNA Textual Tokens



Automatic Detection

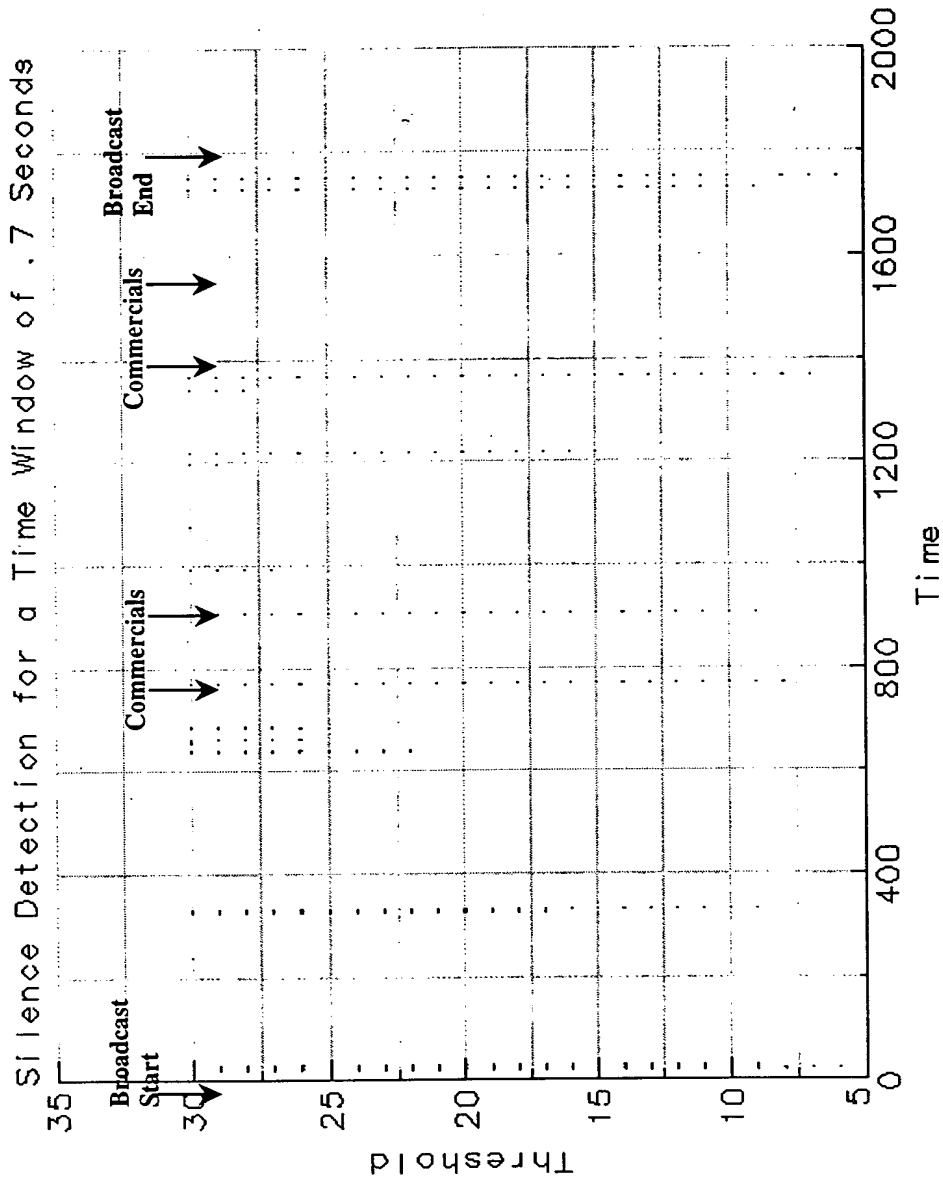
Truth

No Anchor Replacements

CNN Prime 2/25/97

FIG. 5

Silence Detection



CNN Prime News 12/23/96

FIG. 6

Scene Classification

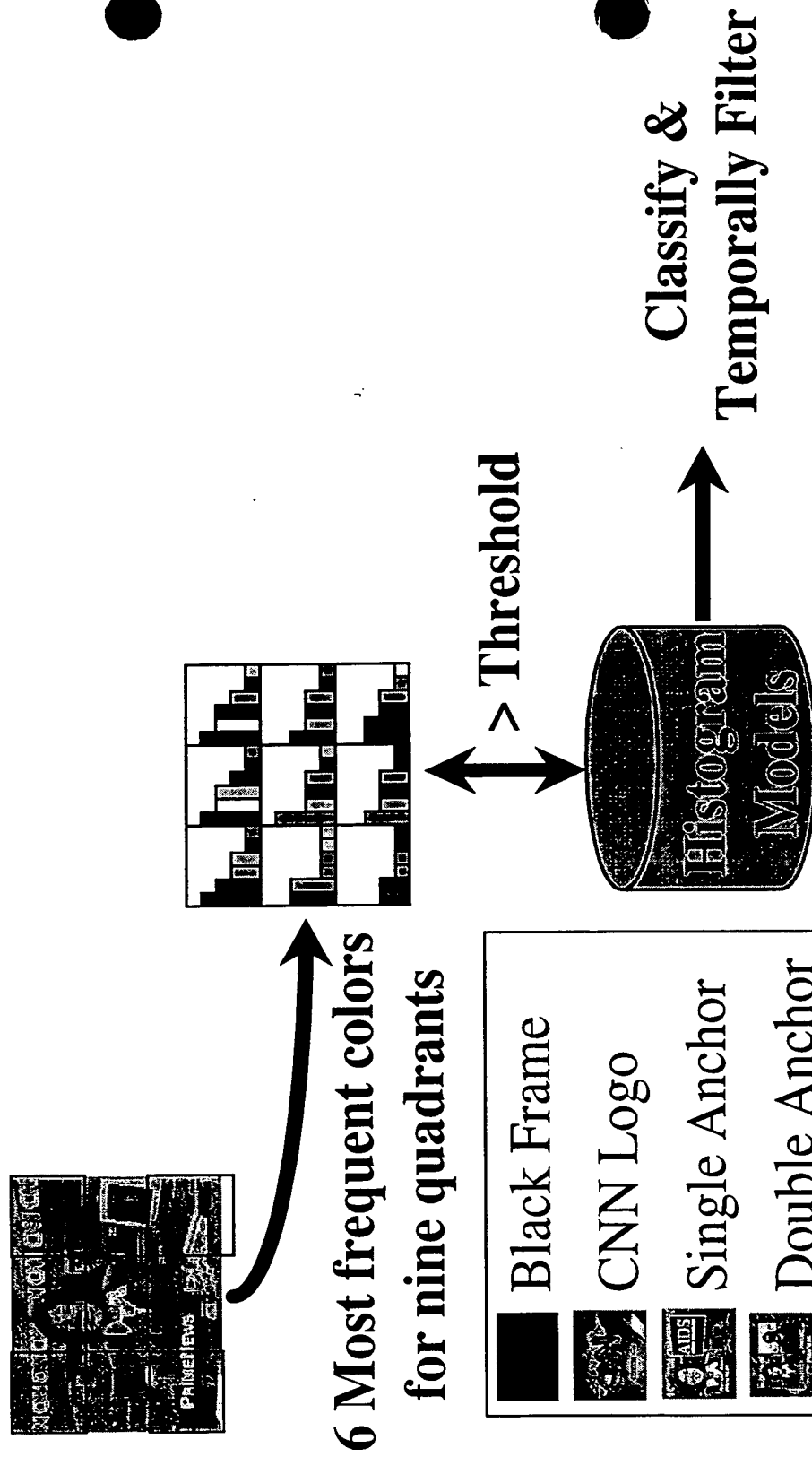


FIG. 7

CNN Prime News 3/24/97



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Broadcast News Analysis:

Story Segment Identification Overview

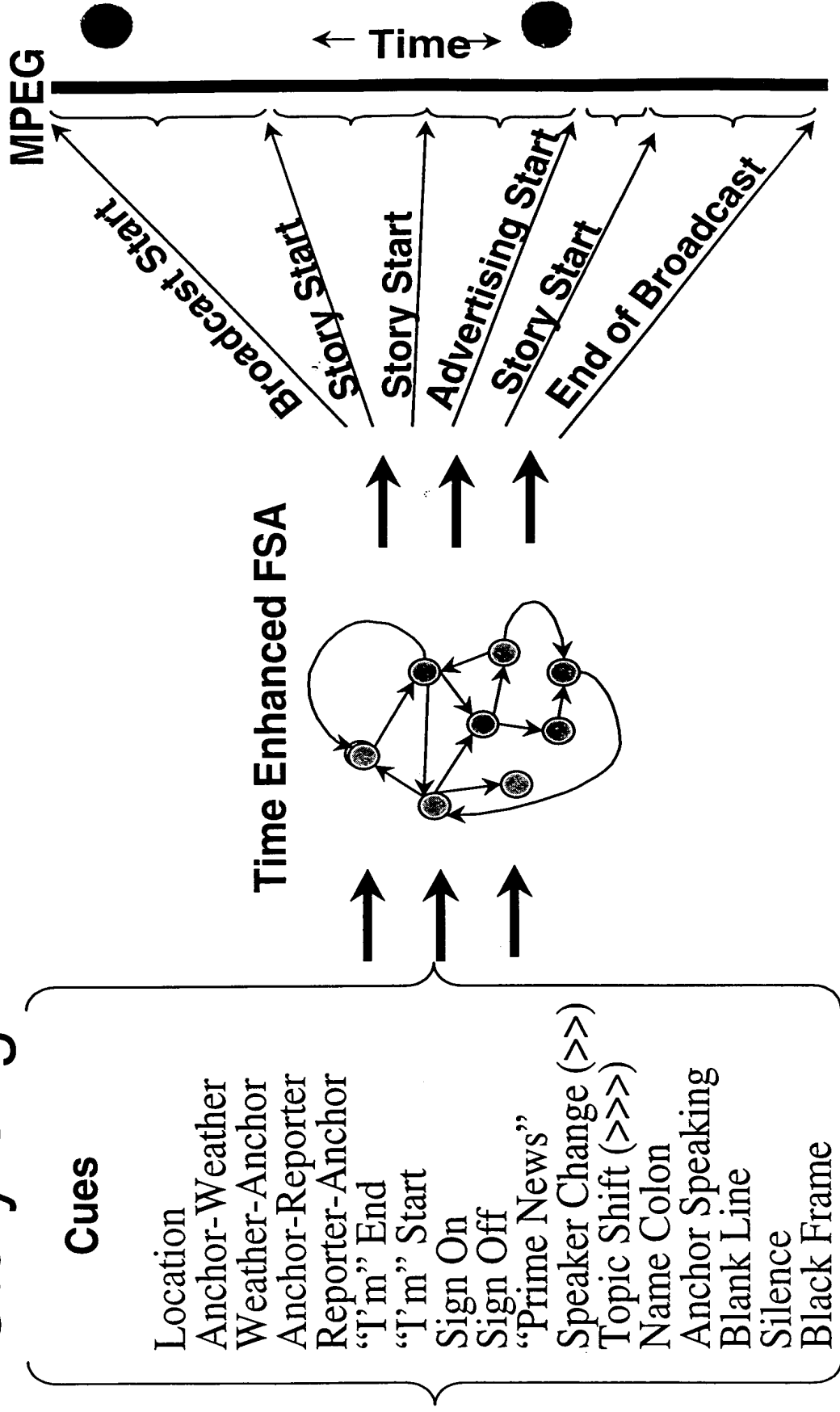


FIG. 10

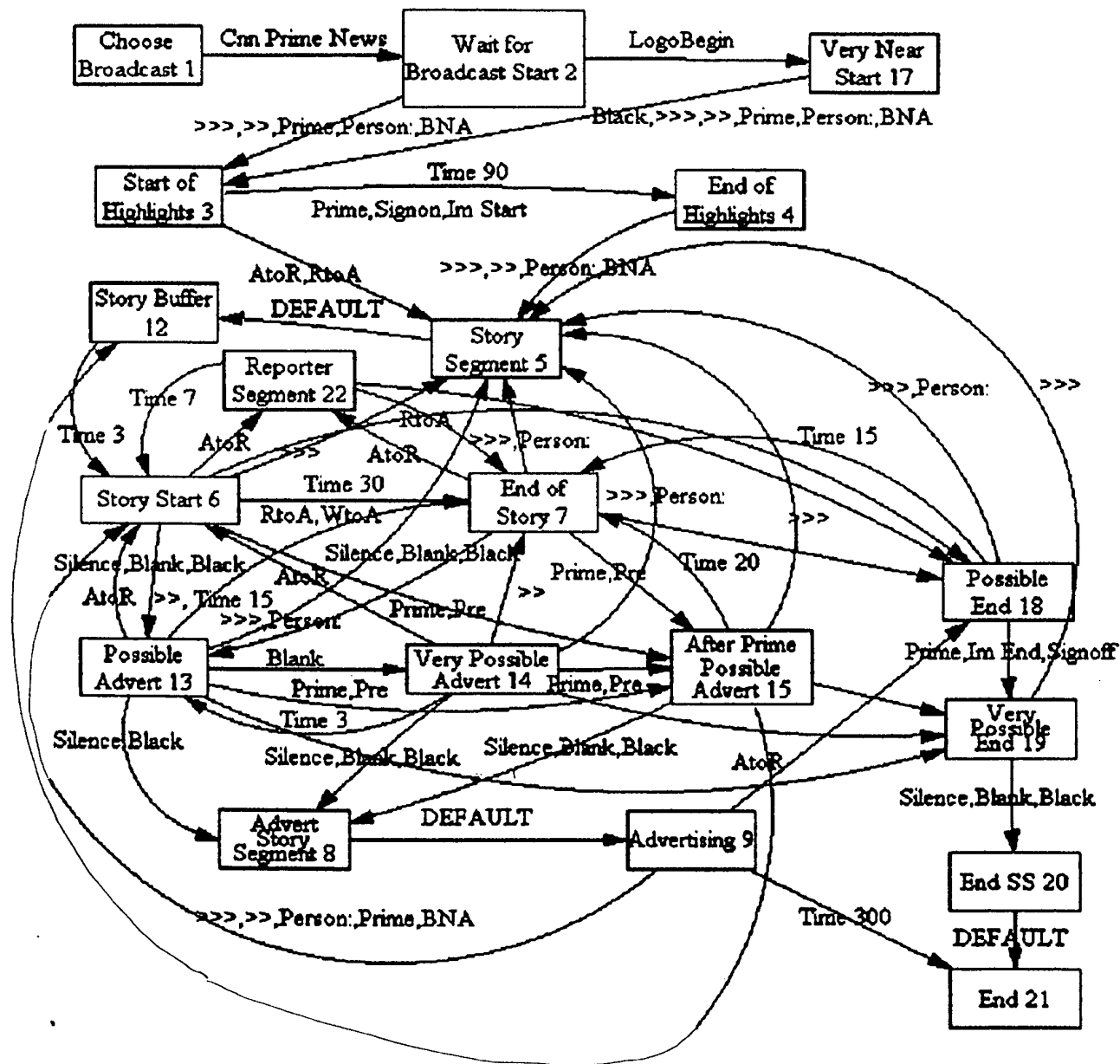


FIG. 11

State_ID Description

- 1 Start
- 2 Wait for Broadcast Start
- 3 Highlights Begin
- 4 Highlights are ending
- 5 Story Segment Detected
- 6 Start of Story
- 7 Near end of Story
- 8 Advert Story Segment
- 9 Wait for Advert End
- 10 Broadcast End Story Segment
- 11 Broadcast Over
- 12 Story Buffer
- 13 Possible Advertisement
- 14 Very Possible Advertisement
- 15 Prime Possible Advertisement
- 16 Prime Highlight
- 17 Very Near Start
- 18 Possible end of Broadcast
- 19 Very Possible End
- 20 End Story Segment
- 21 End Broadcast
- 22 Reporter Segment

FIG. 12

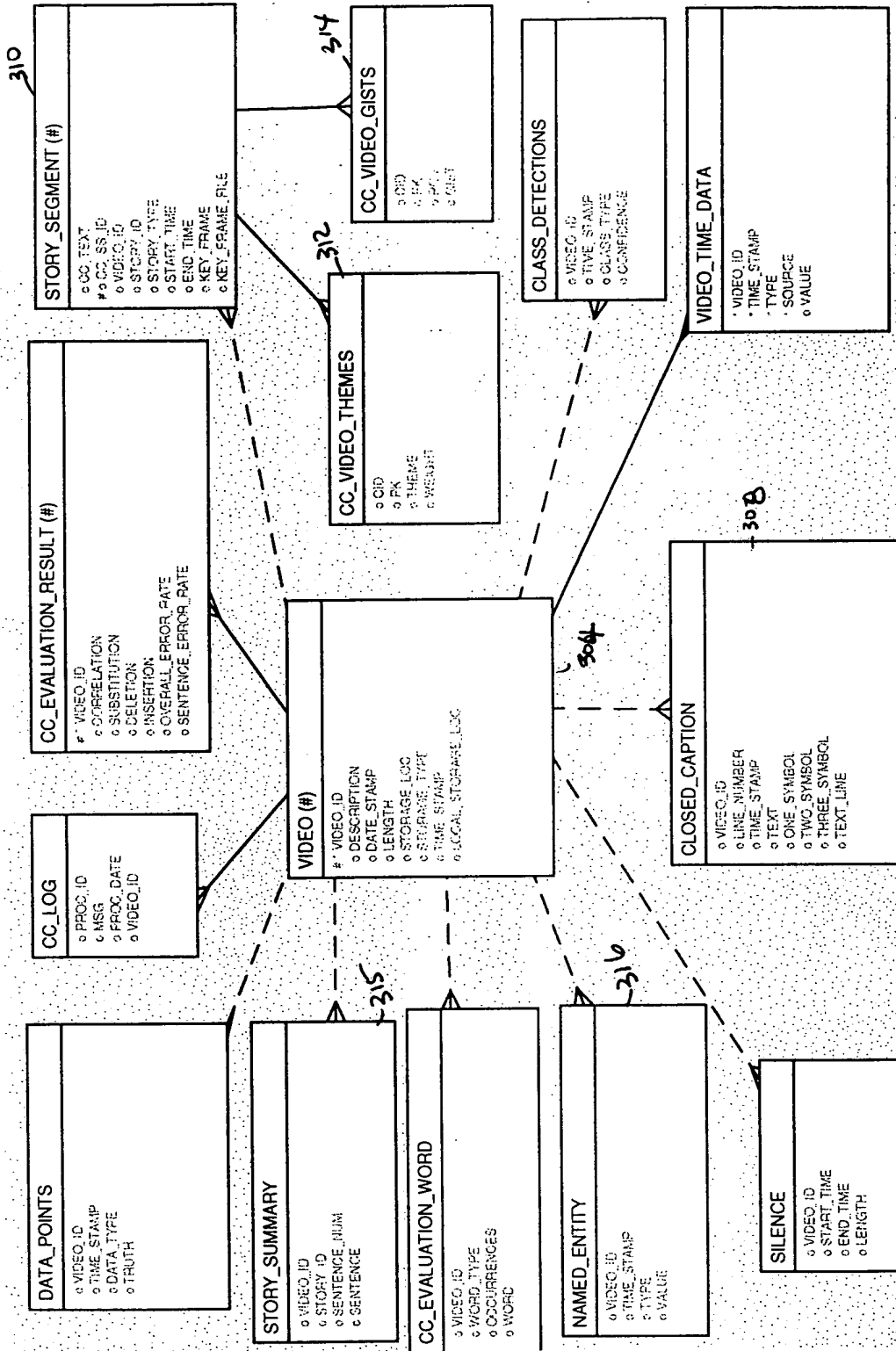
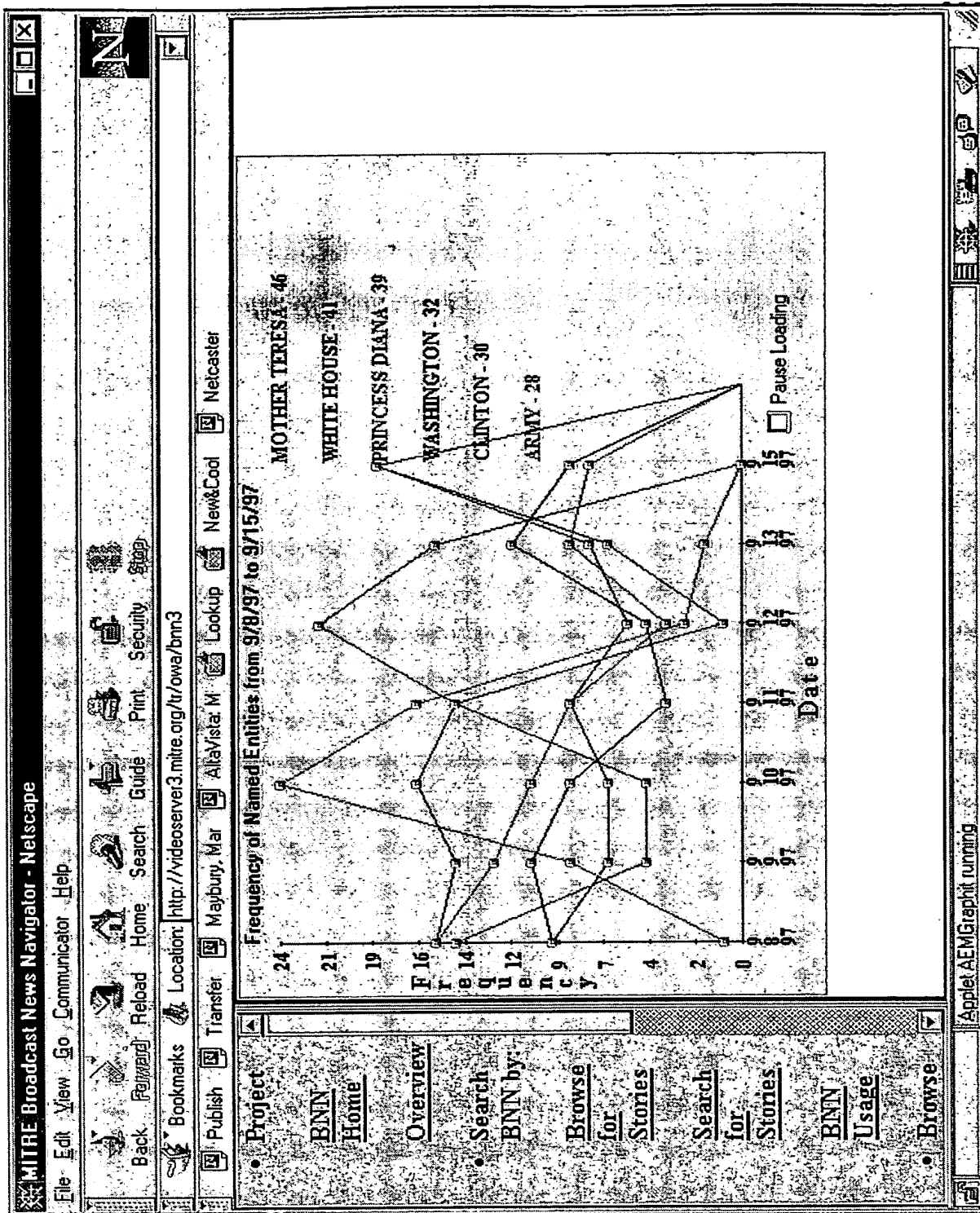


FIG. 13

Visualizing the News



Broadcast News Navigator Query Screen

- Project
- BNN
- Home
- Overview
- Search BNN by
- Browse for Stories
- Search for Stories
- BNN Usage
- Browse Other Sources

Broadcast News Navigator Story Search Tool

Select the type of News source(s), the period of time, and the types of tags you are interested in searching.

News Source

- ☐ 60 Minutes
- ☐ ABC News Nightline
- ☐ ABC World News
- ☐ Andy's Story Segmentation Evaluation
- ☐ CBS Evening News
- ☐ CNN Early Prime
- ☐ CNN Headline News
- ☐ CNN International

Type of Search

- ☒ Text Search
- ☐ Topic Search
- ☐ Person Search
- ☐ Organization Search
- ☐ Location Search

Broadcast Dates

☐ From Date

☐ To Date

- ☐ Last 24 hrs
- ☐ Last 3 days [From 24-SEP-1997]
- ☐ Last Week [From 20-SEP-1997]
- ☐ Last 2 Weeks [From 13-SEP-1997]
- ☐ Last Month [From 28-AUG-1997]
- ☐ Last 3 Months [From 29-JUN-1997]
- ☐ Last 6 Months [From 28-MAR-1997]
- ☐ Last Year [From 27-SEP-1996]

FIG. 15



BNN Browsing: “Pentagon”

FIG. 17

Web-user Identifies Time Period and Story Topic of Interest

Broadcast News Navigator

Tag Frequencies for the Last 7 Days

Occurrences	Type	Value
86	ORGANIZATION	CNN
58	LOCATION	SIMPSON
45	PERSON	LINDEN
42	PERSON	NATALIE
31	PERSON	CLINTON
26	PERSON	OF SIMPSON
25	PERSON	JEANNE
15	LOCATION	WASHINGTON
14	ORGANIZATION	WHITEHOUSE
14	PERSON	NICOLE BROWN SIMPSON

User
Selects

FIG. 18


Search Conditions:

Location:
Zaire

From Date: 03/22/97

To Date: 03/29/97



Key Frame



Program Information

CNN Prime News

Number Hits: 4



6 Most Frequent Tags

Tags:	
LOCATION	Zaire
LOCATION	Brazzaville
PERSON	Mobutu

Related Web Sites

Summary: ARE MOBUTU, CONGO, READY TO BE EVACUATED AMERICANS FROM NEIGHBORING ZAIRE SHOULD THAT BECOME NECESSARY.

Summary

FIG. 19

Viewing the Video

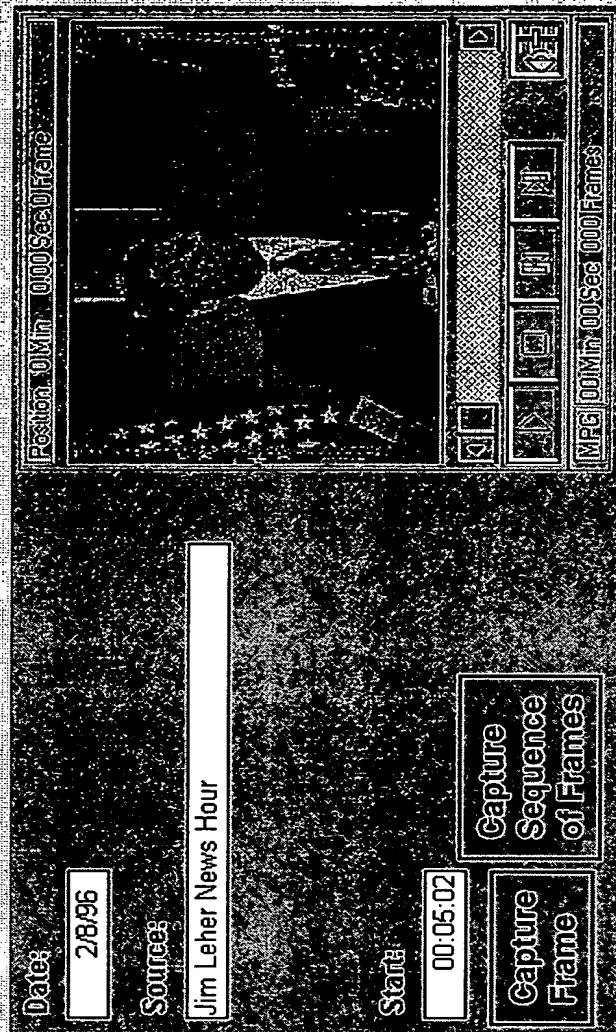


FIG. 20

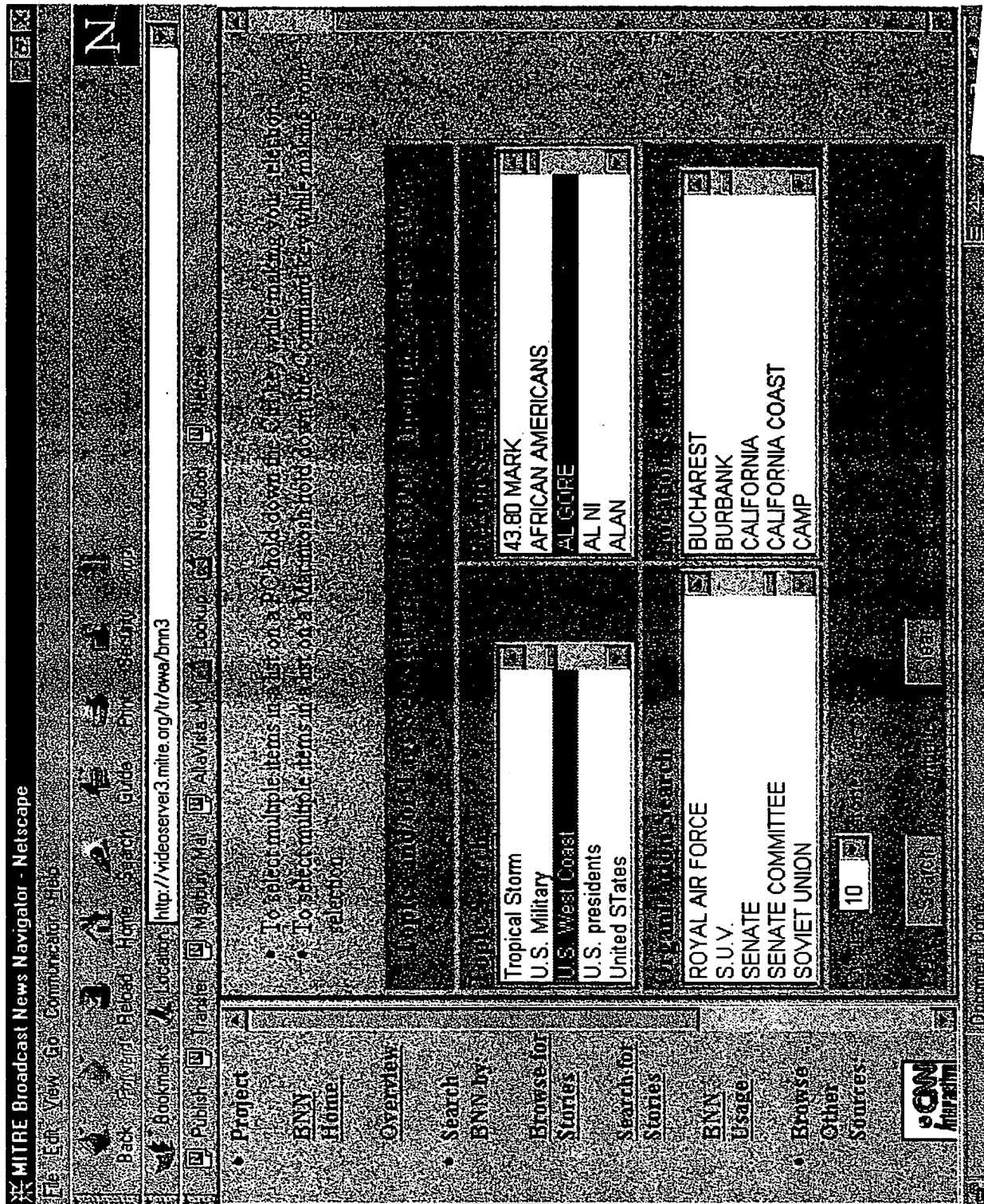


FIG.21

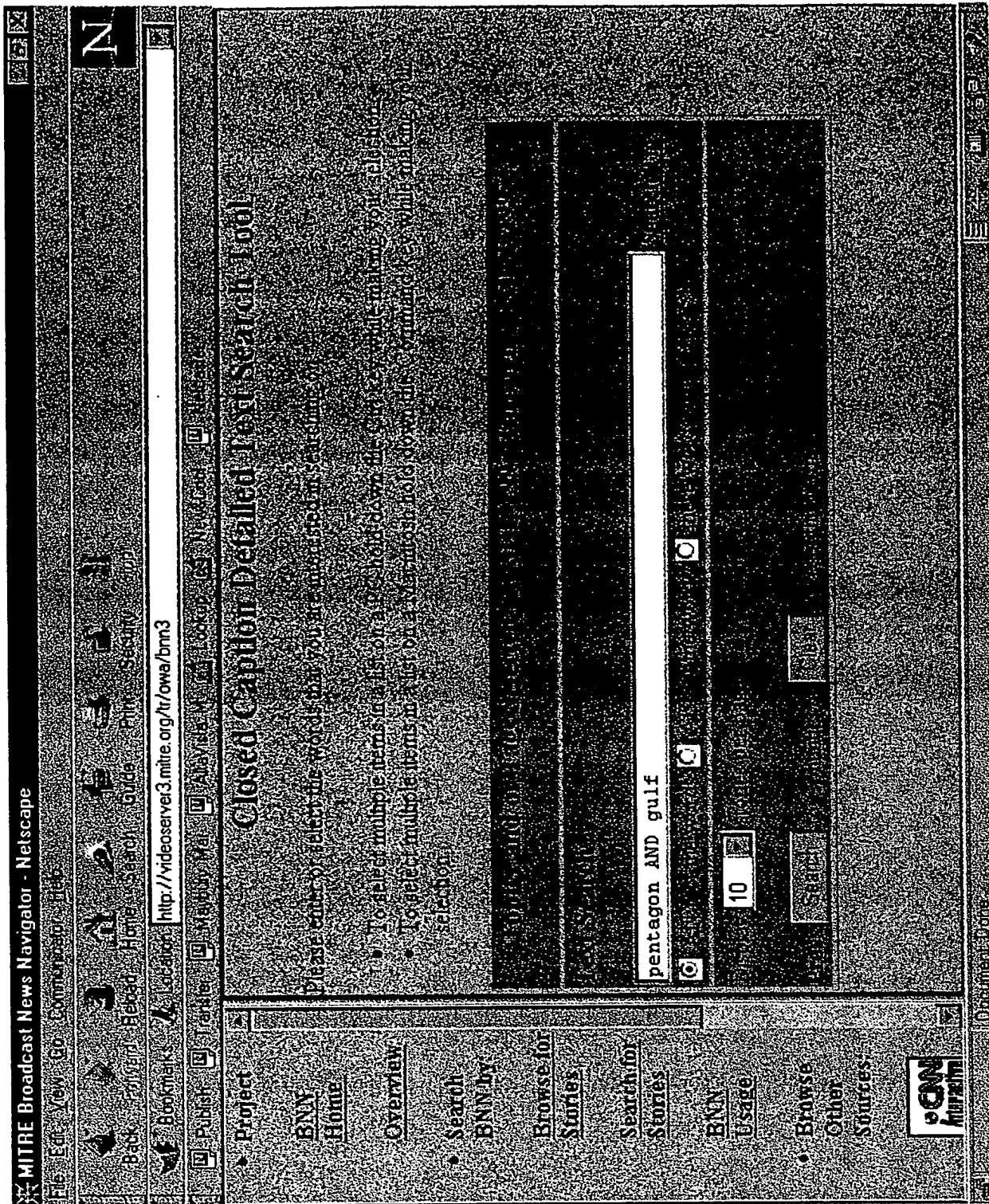


FIG. 22